

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Hirofumi Onishi

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Group Art Unit 3663

Serial No. : 1

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ALPINE.036AUS

: October 16, 2003

For

: DISPLAY METHOD AND

APPARATUS FOR NAVIGATION

SYSTEM

Examiner

Ronnie M. Mancho

APPEAL BRIEF

Hon. Commissioner

of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

I. REAL PARTY IN INTEREST

The real party in interest in this appeal is the assignee Alpine Electronics, Inc.

II. RELATED APPEALS AND INTERFERENCES

Appellant's legal representative and assignee are aware of no appeals which will directly affect or be directly affected by or have any bearing on the board's decision in this appeal.

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III. STATUS OF THE CLAIMS

Claims 1-18 stand finally rejected where Claims 1, 7 and 13 are independent, and the rejection of these claims is appealed herewith. A clean copy of pending Claims 1-18 is attached in the claims appendix.

V. STATUS OF THE AMENDMENTS

After the final office action of March 22, 2007, an amendment was filed to solve the 35 U.S.C. 112, second paragraph issue. The examiner issued an advisory action which declines to enter the amendment for purposes of appeal.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

Appellant's claimed invention relates to a display method and apparatus for navigation system. The gist of the present invention is to allow a user to easily know whether a specified point of interest (POI) such as a hamburger store resides within a large structure such as an airport building by attaching an icon indicating the airport next to the name of the hamburger store in the POI list on a navigation screen. An example of large structure includes a shopping mall, airport, sports stadium, train station, office building, etc. For example, suppose a user is going to see a medical doctor in a hospital on a particular day, but he/she wants to do several errands as well such as buying medicine and flower on the same day, the present invention enables the user to

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easily know whether there is a drug store and/or a florist in the hospital. Other examples of situations where the present invention can be advantageously applicable are described at page 4, lines 13-28 in the specification.

Independent Claim 1

Claim 1 is directed to a display method for navigation system. The display method comprises the steps of receiving map data from a map data storage and retrieving information on points of interest specified by a user (page 15, lines 16-18), examining whether the point of interest specified by the user in the retrieved information is located within a large structure (page 15, lines 18-25), retrieving an icon representing a type of the large structure in which the point of interest is located (page 15, lines 25-30), and displaying a list of names of points of interest specified by the user (page 16, lines 1-5, Figure 7C). In the display method of Claim 1, when the specified point of interest is located within the large structure, the list includes the icon representing the type of the large structure next to the name of the specified point of interest (page 16, lines 5-9, Figure 7D, from page 16, line 33 to page 17, line 17, Figure 9A).

Independent Claim 7

Claim 7 is directed to a display apparatus for navigation system. The display apparatus comprises means for selecting a

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method for searching point of interest information (page 15, lines 6-11, Figure 6 and Figures 7A-7B), a map data storage 21 which stores map data including point of interest information and large structure information (page 14, lines 14-28, Figure 6), a point of interest display control unit 40 which examines the map data from the map data storage and determines whether a point of interest specified by a user is located within a large structure (from page 14, line 29 to page 15, line 5, Figure 6), a memory 39 which stores icons where each icon represents a type of large structure expressed by the large structure information in the map data (page lines 1-3, Figure 6), and a monitor 38 which displays 15, information associated with the navigation system including a list of points of interest (page 15, lines 3-5, Figure 7C). display apparatus, the point of interest display control unit 40 controls the monitor 38 to display a list (Figure 7C) of names of points of interest specified by a user. When the point of interest specified by the user is located within the large structure, the list (Figures 7D and 9A) includes the icon representing the type of the large structure next to the name of the specified point of interest (page 16, lines 5-9, Figure 7D, from page 16, line 33 to page 17, line 17, Figure 9A).

Independent Claim 13

Claim 13 is directed to a display apparatus for navigation system. The elements of Claim 13 are basically the same as that of

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Claim 1 where each element in Claim 13 is recited by a means plus function form rather than the step of Claim 1. The display apparatus comprises means for receiving map data from a map data storage and retrieving information on points of interest specified by a user (Figure 6, page 15, lines 16-18), means for examining whether or not the point of interest specified by the user in the retrieved information is located within a large structure (Figure 6, page 15, lines 18-25), means for retrieving an icon representing a type of the large structure in which the point of interest is located (page 15, lines 25-30), and means for displaying a list of names of points of interest specified by the user (Figure 6, page 16, lines 1-5, Figure 7C). When the point of interest is located within the large structure, the list includes the icon representing the type of the large structure adjacent to the name of the specified point of interest (page 16, lines 5-9, Figure 7D, from page 16, line 33 to page 17, line 17, Figure 9A).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- 1. Whether Claims 1-18 are indefinite, under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter of the invention.
- 2. Whether Claims 1-18 are anticipated, under 35 U.S.C. 102(b), by cited Miyaki reference (U.S. Application Publication No. 2002/0130906, hereinafter "Miyaki").

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VII. ARGUMENT.

1. Rejection of Claims 1-18 under 35 U.S.C. 112, second paragraph

In the office action of June 29, 2006 and the final office action of March 22, 2007, the examiner rejected Claims 1-18 under 35 U.S.C. 112, second paragraph, as being indefinite, on the ground that the term "type of large structure" is not clear. The examiner indicated that the term "large" is not clear because it is a relative term. The examiner suggested to delete the term "type" without showing any basis why this term is unclear. As stated in MPEP 2173.05(b), acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed in light of the specification and that the fact that claim language includes relative terms does not automatically render the claim indefinite.

In response to the office action of June 29, 2006, Appellant has explained that, in this particular invention, the term "large structure" is clear and even helps to understand the invention because the point of the invention is directed to the situation where specified POIs such as restaurants, shops, etc. are located within a large structure such as a shopping mall. The specification provides examples of large structure, for example, at page 10, lines 26-29 as "Examples of such a large structure or compound include a shopping mall, an airport, a train station, an

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amusement park, a sports stadium, a military base, an office building, a university, and the like".

Because of the unique nature of the invention, the term "large structure" provides the reader better understanding of the invention. It should be noted that the point of the invention, i.e., the improvement over the prior art, is to display the information on the type of large structure (airport, train station, etc.) in addition to the information on particular POI. In other words, the improvement over the prior art does not rest upon a size or shape of an element or in combination of elements in the claim, thus, the scope of the claim is clear even though the term "large" is incorporated therein.

The term "type" also helps to clarify the invention because the icon used in the present invention is to show the type, i.e., category, of the large structure rather than its name. One of ordinary skill in the art would understand what is claimed with respect to the "type" in light of the specification, for example, at page 16, lines 15-23, which reads as follows:

Figure 8 shows examples of icons used to show the type of large structure in the present invention. An icon 91 indicates an airport to show that a POI is located within the airport. An icon 93 indicates a train station to show that a POI is located within the train station. An icon 95 indicates a shopping mall to show that a POI is located within the shopping mall. Although only three examples are shown in Figure 8, many other icons representing other large structures are conceivable.

In the final office action dated March 22, 2007, the examiner ignores the Appellant's arguments and rejects Claims 1-18 under 35

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U.S.C. 112, second paragraph, by repeating the same reasoning that the term "large" is relative term and the term "type" is unnecessary. The examiner did not consider the specific character of the present invention and did not provide any basis of indefiniteness rejection in light of the invention. Therefore, Appellant submits that the rejection under 35 U.S.C. 112, second paragraph, is not legally viable.

2. Rejection of Claims 1-18 under 35 U.S.C. 102(b)

As recited in Claims 1, 7 and 13, the features of the present invention reside in that it (1) displays a list of names of POI specified by the user, and (2) when the specified POI is located within a large structure, the list shows the icon representing the type of the large structure next to the name of the specified POI. Throughout the prior and final office actions, the examiner has indicated that these features are disclosed by Miyaki without showing any specific basis. In reality, the technology disclosed by Miyaki is not related to the situation of the present invention where POIs are included within a large structure.

With respect to the feature (1) that it "displays a list of names of POI specified by the user, the examiner did not show, in any of the office actions, as to which portion of Miyaki corresponds to the list of POI names. With respect to the first half of the feature (2) "when the specified POI is located within a large structure", the examiner did not show, in any of the office

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actions, as to which portion of Miyaki corresponds to the large structure. Further, with respect to the second half of the feature (2) "the list includes the icon representing the type of the large structure next to the name of the specified POI", the examiner did not show, in any of the office actions, as to which portion of Miyaki corresponds to the name of the specified POI and which portion of Miyaki corresponds to the icon of the large structure, let alone displayed next to the specified POI.

Miyaki is directed to a point of interest icon display method for displaying a point of interest icon on a map image on the display screen. It should be noted that the present invention is not directed to the point of interest icon display method. Namely, in the present invention, icons of points of interest are not displayed on the navigation system, but only the icon of the large structure is displayed only when a point of interest is located within the large structure. More specifically, in the present invention, the points of interest are displayed by a list of names of the points of interest. None of the drawings of Miyaki show a list of names of points of interest. Therefore, there is clear difference between the claimed invention and the icon display method of Miyaki, the Miyaki does not show or suggest the feature (1) of the present invention.

With respect to the large structure, Miyaki indicates the problem involved in the conventional technology in displaying an

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icon of a large structure (large premise) in paragraph 4 which reads as follows:

[0004] The navigation apparatus displays POI (facilities) having large premises, such as parks, hospitals, and factories, using polygons, as shown in FIG. 14, and within the polygon, a mark displays, (POI icon) indicating the category of the POI along the road. When this POI icon is pointed to by a cursor and the enter key is pressed, the navigation apparatus displays detailed information about the selected POI. However, since the POI icon is displayed at an end of the polygon, it is difficult to see the POI icon, and moreover, when the POI icon is at an end of a polygon, it is difficult to point to the POI icon using the cursor, and there is a problem in that another nearby POI icon might be selected erroneously. (underline added)

It is apparent from the citation above, the problem to be solved by the technology of Miyaki is to display the icon of the large premise in a manner more easily seen by the user because it is difficult to see the POI icon since the POI icon is displayed at an end of the polygon. To solve this problem, the invention disclosed by Miyaki displays the topological shape of the large premise (large POI) on the map and displays the icon of the large premise at the center of the topological shape (Fig. 12B). This solution of the problem by Miyaki is further described in paragraph 8, which reads as follows:

[0008] According to the present invention, the second object can be achieved by a POI icon display method comprising the steps of: (1) <u>displaying a POI on a map by using a polygon</u>; and (2) displaying the POI icon which is present within the POI polygon in the <u>central portion of the polygon</u>. (underline added)

In the present invention, however, as stated in the feature (2) above, when a point of interest is located within a large

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structure, the list includes the icon representing the type of the large structure next to the name of such a point of interest. other words, the display method of the present invention will not display the map or the shape of the large structure but displays the list of names of the points of interest. When a point of interest in the list is located within a large structure, the icon of the large structure is displayed adjacent to the name of the point of interest. Since the map image or the topological shape of the large structure is not displayed in the present invention, it never occurs that the icon of the large structure is displayed at the center of the large structure. Therefore, there is clear difference between the claimed invention and the icon display method of Miyaki, thus, Miyaki does not show or suggest the feature (2) of the present invention.

Since none of the essential features of the present invention are shown or suggested by the cited Miyaki reference, the applicant believes that the rejection under 35 U.S.C. 102(b) is not applicable to the present invention.

CONCLUSION

It is believed to be clear that the final office action of March 22, 2007 fails to properly analyze the claimed subject matter and rejects the claims solely because of the type of language used in the claims. It is also believed to be clear that the final office action of March 22, 2007 fails to properly analyze the

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claimed subject matter and to properly determine the differences between the claimed subject matter and the prior art reference. Accordingly, based on the discussion above, it is believed to be clear that 1-18 clearly and definitely recite the features that are clearly not taught by Miyaki. Under these conditions, it is clear that the rejections by the Examiner must be reversed.

Respectfully submitted,

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VIII. CLAIMS APPENDIX

1. A display method for a navigation system, comprising the following steps of:

receiving map data from a map data storage and retrieving information on points of interest specified by a user;

examining whether the point of interest specified by the user in the retrieved information is located within a large structure;

retrieving an icon representing a type of the large structure in which the point of interest is located; and

displaying a list of names of points of interest specified by the user;

wherein, when the specified point of interest is located within the large structure, the list includes the icon representing the type of the large structure next to the name of the specified point of interest.

2. A display method for a navigation system as defined in Claim 1, wherein said step of examining whether the point of interest is located within a large structure includes a step of checking point coordinate data in the map data representing a location of the point of interest and polygon data in the map data representing an area of a land or a structure to see whether or not the location of the point of interest is included within the area of the land or structure.

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- 3. A display method for a navigation system as defined in Claim 1, wherein said step of examining whether the point of interest is located within a large structure includes a step of comparing point coordinate data in the map data representing a location of the point of interest and polygon data in the map data representing an area of a land or a structure, and a step of determining whether or not the location of the point of interest is within a boundary of the large structure defined by the polygon data.
- 4. A display method for a navigation system as defined in Claim 1, further comprising the step of: displaying detailed information on the large structure when the user specifies the icon representing the type of large structure.
- 5. A display method for a navigation system as defined in Claim 4, wherein said detailed information on the large structure displayed on the navigation system includes a name and an address of the large structure.
- 6. A display method for a navigation system as defined in Claim 4, wherein said step of displaying the detailed information on the large structure includes a step of producing a pop-up screen showing the detailed information on the monitor screen.
 - 7. A display apparatus for a navigation system, comprising: means for selecting a method for searching point of interest information;

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a map data storage which stores map data including point of interest information and large structure information;

a point of interest display control unit which examines the map data from the map data storage and determines whether a point of interest specified by a user is located within a large structure;

a memory which stores icons where each icon represents a type of large structure expressed by the large structure information in the map data; and

a monitor which displays information associated with the navigation system including a list of points of interest;

wherein said point of interest display control unit controls said monitor to display a list of names of points of interest specified by a user, and when the point of interest specified by the user is located within the large structure, the list includes the icon representing the type of the large structure next to the name of the specified point of interest.

8. A display apparatus for a navigation system as defined in Claim 7, wherein said point of interest display control unit checks point coordinate data in the map data representing a location of the point of interest and polygon data in the map data representing an area of a land or a structure to see whether or not the location of the point of interest is included within the area of the land or structure.

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9. A display apparatus for a navigation system as defined in Claim 7, wherein said point of interest display control unit compares point coordinate data in the map data representing a location of the point of interest and polygon data in the map data representing an area of a land or a structure, and determines whether or not the location of the point of interest is within a boundary of the large structure defined by the polygon data.

- 10. A display apparatus for a navigation system as defined in Claim 7, wherein said point of interest display control unit causes said monitor to display detailed information on the large structure when the user specifies the icon representing the type of large structure.
- 11. A display apparatus for a navigation system as defined in Claim 10, wherein said detailed information on the large structure displayed on the navigation system includes a name and an address of the large structure.
- 12. A display apparatus for a navigation system as defined in Claim 10, wherein said point of interest display control unit causes said monitor to display a pop-up screen showing the detailed information on said large structure.
 - 13. A display apparatus for a navigation system, comprising: means for receiving map data from a map data storage and retrieving information on points of interest specified by a user;

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means for examining whether or not the point of interest specified by the user in the retrieved information is located within a large structure;

means for retrieving an icon representing a type of the large structure in which the point of interest is located; and means for displaying a list of names of points of interest specified by the user;

wherein, when the point of interest is located within the large structure, the list includes the icon representing the type of the large structure adjacent to the name of the specified point of interest.

- 14. A display apparatus for a navigation system as defined in Claim 13, wherein said means for examining whether the point of interest is located within a large structure includes means for checking point coordinate data in the map data representing a location of the point of interest and polygon data in the map data representing an area of a land or a structure to see whether or not the location of the point of interest is included within the area of the land or structure.
- 15. A display apparatus for a navigation system as defined in Claim 13, wherein said means for examining whether the point of interest is located within a large structure includes a step of comparing point coordinate data in the map data representing a location of the point of interest and polygon data in the map data representing an area of a land or a structure, and means for

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determining whether or not the location of the point of interest is within a boundary of the large structure defined by the polygon data.

- 16. A display apparatus for a navigation system as defined in Claim 13, further comprising means for displaying detailed information on the large structure when the user specifies the icon representing the type of large structure.
- 17. A display apparatus for a navigation system as defined in Claim 16, wherein said detailed information on the large structure displayed on the navigation system includes a name and an address of the large structure.
- 18. A display apparatus for a navigation system as defined in Claim 16, wherein said means for displaying the detailed information on the large structure includes means for producing a pop-up screen showing the detailed information on the monitor screen.

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IX. EVIDENCE APPENDIX

NONE

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X. RELATED PROCEEDINGS APPENDIX

NONE

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